



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL MODIFICATION
CUYAHOGA COUNTY**

CERTIFIED MAIL

Street Address:

50 West Town Street, Suite 700

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 13-03071

Fac ID: 1318004330

DATE: 9/27/2007

VA Medical Center
William Jamieson
10701 East Blvd.
Cleveland, OH 44106-1702

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

CLAA



Permit To Install
Terms and Conditions

Issue Date: 9/27/2007
Effective Date: 9/27/2007

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 13-03071

Application Number: 13-03071
Facility ID: 1318004330
Permit Fee: **\$600**
Name of Facility: VA Medical Center
Person to Contact: William Jamieson
Address: 10701 East Blvd.
Cleveland, OH 44106-1702

Location of proposed air contaminant source(s) [emissions unit(s)]:

**10701 East Blvd
Cleveland, Ohio**

Description of proposed emissions unit(s):

Administrative Modification of emissions unit B004 to address the installation of Low-NOx burners.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon

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the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

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The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

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13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	8.28
NOx	32.8
CO	33
S02	21.3
OC	4.4

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Facility ID: 131800433

Emissions Unit ID: B004

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
B004 - 31.46 mmBtu/hr natural gas/No. 2 fuel oil fired boiler with Low NOx Burner (LNB)	OAC rule 3745-18-06(D) OAC rule 3745-31-05(A)(3) 40 CFR Part 60 Subpart Dc
Modified The terms and conditions of this permit supercede the terms and conditions of PTI 13-03071 issued on 7/11/2000.	OAC rule 3745-31-05(C) Synthetic Minor status to avoid Title V

OAC rule 3745-17-07(A)(1)
OAC rule 3745-17-10(B)(1)

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Facility ID: 131800433

Emissions Unit ID: B004

Applicable Emissions
Limitations/Control Measures

From burning natural gas
1.50 lbs/hr NOx and 6.57 TPY
2.52 lbs/hr CO and 11.0TPY
0.33 lbs/hr OC and 1.45 TPY
2.76TPY of PE

From burning No. 2 fuel oil
2.89 lb/hr NOx
15.8 lbs/hr of SO2
1.11 lbs/hr CO

The requirements of this rule include compliance with the requirements of 3745-17-07(A)(1), 17-10(B)(1), and NSPS Subpart Dc.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to NSPS Subpart Dc.

0.020 lb/MMBtu of PE
The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to NSPS Subpart Dc.

Sulfur content of the oil shall not exceed 0.5 weight percent.

Opacity shall not exceed 20%, as a six-minute average, except for one six-minute period per

hour of not more than 27% opacity.

Fuel oil usage restriction see B.3 below.

From burning No. 2 fuel oil
1.3 TPY NOx*
7.1 TPY SO2*
0.5 TPY CO*
2.76TPY of PE

* as a rolling 12-month summation of emissions

Modification Issued: 9/27/2007**2. Additional Terms and Conditions****2.a** None**B. Operational Restrictions**

1. The permittee shall burn only natural gas and/or No.2 fuel oil in this emissions unit.
2. The quality of the oil burned in this emissions unit shall meet the following specifications on an "as received" basis:
 - a. a sulfur content that is not greater than 0.5 weight percent sulfur; and
 - b. a heat content that is greater than 140,000 Btu/gallon of oil.

Compliance with the above-mentioned specifications shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil.

3. This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the No. 2 fuel oil usage, upon issuance of this permit. The maximum annual No. 2 fuel oil usage rate for this emissions unit shall not exceed 200,000 gallons of No. 2 fuel oil used, based upon a rolling, 12-month summation of the fuel usage rates.

C. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas and/or No.2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the Cleveland Division of Air Quality.
3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's

analyses for sulfur content and heat content.

4. The permittee shall maintain monthly records of the following information:
 - a. the No. 2 fuel oil usage (in gallons) rate for each month; and
 - b. the rolling, 12-month summation of the No. 2 fuel oil usage rates.
5. The permittee shall maintain monthly records of the following information:
 - a. the natural gas usage (in cubic feet) rate for each month; and
 - b. the rolling, 12 month summation of natural gas usage rates.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas and/or No.2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses to the Cleveland DAQ for each shipment of oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent by weight) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
 - a. the total quantity of oil received in each shipment (gallons);
 - b. the weighted* average sulfur content (% by weight) for the oil received during the calendar month; and
 - c. the weighted* average heat content (Btu/gallon) of the oil received during the calendar month.

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*In proportion to the quantity of oil received in each shipment during the calendar month.

These reports shall be submitted (i.e., postmarked) quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

3. The permittee shall submit deviation (excursion) reports to the Cleveland DAQ that identify all exceedances of the rolling, 12-month limitation of the No. 2 fuel oil usage rate. These reports shall be submitted within thirty (30) days after the exceedance occurs.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

- a . Emission Limitation -

20% opacity, as a six-minute average

Applicable Compliance Method(s) -

Compliance shall be determined by visible emission observations performed in accordance with USEPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03 (B)(1).

- b . Emission Limitation -

when burning natural gas

1.50 lbs/hr of NO_x and 6.57 TPY

Applicable Compliance Method -

Compliance shall be based upon multiplying the maximum hourly heat input capacity of the emissions unit (31.46 MMBtu/hr) by the AP-42 emission factor for NO_x (50 lbs NO_x/million cubic feet for Low NO_x Burner) and dividing by the heat content for natural gas (1 ft³/1050 btu) to arrive at the short term emission rate in lb/hr. The short term emission rate is multiplied by the annual operating hours of the emissions unit (8760) and divided by 2000 lbs/ton to arrive at the tons per year (TPY) emission rate.

- c . Emission Limitation -

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2.52 lbs/hr of CO and 11.0 TPY when burning natural gas

Applicable Compliance Method -

Compliance shall be based upon multiplying the maximum hourly heat input capacity of the emissions unit (31.46 mmBtu/hr) by the AP-42 emission factor for CO (84 lbs CO/million cubic feet) and dividing by the heat content for natural gas (1 ft³/1050 btu) to arrive at the short term emission rate in lb/hr. The short term emission rate is multiplied by the annual operating hours of the emissions unit (8760) and divided by 2000 lbs/ton to arrive at the TPY emission rate.

d. Emission Limitation -

0.33 lb/hr of OC and 1.45 TPY when burning natural gas

Applicable Compliance Method -

Compliance shall be based upon multiplying the maximum hourly heat input capacity of the emissions unit (31.46 MMBtu/hr) by the AP-42 emission factor for OC (11 lbs OC/million cubic feet) and dividing by the heat content for natural gas (1 ft³/1050 btu) to arrive at the short term emission rate in lb/hr. The short term emission rate is multiplied by the annual operating hours of the emissions unit (8760) and divided by 2000 lbs/ton to arrive at the tons per year (TPY) emission rate.

e. Emission Limitation -

0.020 lb/MMBtu actual heat input of PE and

2.76 TPY when burning natural gas and No. 2 fuel oil

Applicable Compliance Method -

Natural Gas

Compliance shall be based upon multiplying the maximum hourly natural gas burning capacity of the emissions unit (0.0299mmcu.ft/hr) by the AP-42 emission factor for natural gas (7.6 lb/MMCU.FT)(7/98) and dividing by the maximum hourly heat input capacity of the emissions unit (31.46 mmBtu/hr) to arrive at the short term emission rate in lb/MMBtu.

No. 2 Fuel Oil

Compliance shall be based upon multiplying the maximum fuel oil capacity of the

Emissions Unit ID: **B004**

emissions unit (222gal/hr) by the AP-42 emission factor for PM(2 lb/1000 gal) and dividing by the maximum hourly heat input capacity of the emissions unit (31.46 mmBtu/hr) to arrive at the short term emission rate in lb/MMBtu.

The short term emission (0.020 lb PE/mmBtu) rate is multiplied by the maximum hourly heat input capacity of the emissions unit (31.46mmBtu/hr) and the annual operating hours of the emissions unit (8760). This total is divided by 2000 lbs/ton to arrive at the TPY emission rate.

f . Emission Limitation -

15.8 lbs/hr of SO₂ and 7.1 TPY when burning No. 2 fuel oil

Applicable Compliance Method -

For the use of No.2 fuel oil, compliance shall be based upon multiplying the maximum fuel oil capacity of the emissions unit (222gal/hr) by the AP-42 emission factor for SO₂ (142*S lb/1000 gal). S is equal to the % weight of Sulfur in the fuel to arrive at the short term emission rate in lb/hr. The annual emission rate is determined by multiplying the AP-42 emission factor for SO₂ (142*S lb/1000 gal) by the actual annual gallons of No. 2 fuel oil and divided by 2000 lbs/ton to arrive at the tons per year (TPY) emission rate.

g . Emission Limitation -

2.89 lbs/hr of NO_x and 1.3 TPY when burning No. 2 fuel oil

Applicable Compliance Method -

For the use of No.2 fuel oil, compliance shall be based upon multiplying the maximum fuel oil capacity of the emissions unit (222 gal/hr) by the AP-42 emission factor for NO_x (20 lb/1000 gal) and then multiply by (1 - 0.35) to account for the reduction due to the Low NO_x burners to arrive at the short term emission rate in lb/hr.

Multiply the actual annual gallons of No. 2 fuel oil by the AP-42 emission factor for NO_x (20 lb/1000 gal) to determine annual emission rate, and divided by 2000 lbs/ton to arrive at the tons per year (TPY) emission rate. The actual TPY is then multiplied by AP-42 emissions reduction factor of 0.35% to determine reduction in NO_x emissions due to use of low NO_x burner (LNB). The reduction in NO_x is then subtracted from the uncontrolled to arrive at the actual NO_x emissions while using the Low NO_x Burner (LNB).

h . Emission Limitation -

1.11 lb/hr of CO and 0.5 TPY when burning No. 2 fuel oil

Applicable Compliance Method -

For the use of No.2 fuel oil, compliance shall be based upon multiplying the maximum fuel oil capacity of the emissions unit (222 gal/hr) by the AP-42 emission factor for CO (5 lb/1000 gal) to arrive at the short term emission rate in lb/hr. The actual annual gallons of No. 2 fuel oil is multiplied by the AP-42 emission factor for CO (5 lb/1000 gal) to arrive at the annual emission rate then divided by 2000 lbs/ton to arrive at the tons per year emission rate.

F. Miscellaneous Requirements

1. This source is subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. actual start-up date (within 15 days after such date); and,
- c. date of performance testing (If required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, OH 43216-3669

and

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Emissions Unit ID: B004

The Cleveland Bureau of Air Pollution Control
1925 St. Clair Ave.
Cleveland, Ohio 44114

VA M

PTI A

Modification Issued: 9/27/2007

Emissions Unit ID: B005

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property,
and/or Equipment

B005 - 31.46 MMBtu/hr natural
gas/No. 2 fuel oil fired boiler

Modified

The terms and conditions of
this permit supercede the terms
and conditions of PTI 13-03071
issued on 7/11/2000.

Applicable Rules/Requirements

OAC rule 3745-31-05(A)(3)

40 CFR Part 60 Subpart Dc

OAC rule 3745-31-05(C)
Synthetic Minor status to avoid
Title V

OAC rule 3745-17-07(A)(1)

OAC rule 3745-17-10(B)(1)

OAC rule 3745-18-06(D)

VA M

PTI A

Modification Issued: 9/27/2007

Emissions Unit ID: B005

Applicable Emissions
Limitations/Control Measures

From burning natural gas
0.33 lb/hr OC and 1.45 TPY
3.00 lbs/hr NOx and 13.1 TPY
2.52 lbs/hr CO and 11.0 TPY
2.76 TPY of PE

From burning No. 2 fuel oil
15.8 lbs/hr SO2
4.44 lbs/hr NOx
1.11 lbs/hr CO

The requirements of this rule
include compliance with the
requirements of
3745-17-07(A)(1), 17-10(B)(1),
and NSPS Subpart Dc.

The emission limitation
specified by this rule is less
stringent than the emission
limitation established pursuant
to NSPS Subpart Dc.

0.020 lb/MMBtu of PE

The emission limitation
specified by this rule is less
stringent than the emission
limitation established pursuant

to NSPS Subpart Dc.

Sulfur content of the oil shall not
exceed 0.5 weight percent.

Opacity shall not exceed 20%,
as a six-minute average, except
for one six-minute period per
hour of not more than 27%
opacity.

Fuel oil usage restriction
see B.3 below.

From burning No. 2 fuel oil
7.1 TPY SO2*
2 TPY NOx*
0.5TPY CO*
2.76 TPY of PE

* as a rolling 12-month
summation of emissions

2. Additional Terms and Conditions

2.a None.

B. Operational Restrictions

1. The permittee shall burn only natural gas and/or No.2 fuel oil in this emissions unit.
2. The quality of the oil burned in this emissions unit shall meet the following specifications on an "as received" basis:
 - a. a sulfur content that is not greater than 0.5 weight percent sulfur; and
 - b. a heat content that is greater than 140,000 Btu/gallon of oil.

Compliance with the above-mentioned specifications shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil.

3. This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the No. 2 fuel oil usage, upon issuance of this permit. The maximum annual No. 2 fuel oil usage rate for this emissions unit shall not exceed 200,000 gallons of No. 2 fuel oil used, based upon a rolling, 12-month summation of the fuel usage rates.

C. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas and/or No.2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the Cleveland Division of Air Quality.
3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's

analyses for sulfur content and heat content.

4. The permittee shall maintain monthly records of the following information:
 - a. the No. 2 fuel oil usage (in gallons) rate for each month; and
 - b. the rolling, 12-month summation of the No. 2 fuel oil usage.
5. The permittee shall maintain monthly records of the following information:
 - a. the natural gas usage (in cubic feet) rate for each month; and
 - b. the rolling, 12 month summation of natural gas usage rates

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas and/or No.2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses to the Cleveland DAQ for each shipment of oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent by weight) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
 - a. the total quantity of oil received in each shipment (gallons);
 - b. the weighted* average sulfur content (% weight) for the oil received during the calendar month; and
 - c. the weighted* average heat content (Btu/gallon) of the oil received during the calendar month.

*In proportion to the quantity of oil received in each shipment during the calendar month.

These reports shall be submitted (i.e., postmarked) quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

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3. The permittee shall submit deviation (excursion) reports to the Cleveland DAQ that identify all exceedances of the rolling, 12-month limitation of the No. 2 fuel oil usage rate. These reports shall be submitted within 30 days after the exceedance occurs

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

- a . Emission Limitation -

20% opacity, as a six-minute average

Applicable Compliance Method(s) -

Compliance shall be determined by visible emission observations performed in accordance with USEPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03 (B)(1).

- b . Emission Limitation -

0.33 lb/hr of OC and 1.45 TPY when burning natural gas

Applicable Compliance Method -

Compliance shall be based upon multiplying the maximum hourly heat input capacity of the emissions unit (31.46 MMBtu/hr) by the AP-42 emission factor for OC (11 lbs OC/million cubic feet) and dividing by the heat content for natural gas (1 ft³/1050 btu) to arrive at the short term emission rate in lb/hr. The short term emission rate is multiplied by the annual operating hours of the emissions unit (8760) and divided by 2000 lbs/ton to arrive at the tons per year (TPY) emission rate.

c . Emission Limitation -

3.00 lbs/hr of NO_x and 13.1 TPY when burning natural gas

Applicable Compliance Method -

Compliance shall be based upon multiplying the maximum hourly heat input capacity of the emissions unit (31.46 MMBtu/hr) by the AP-42 emission factor for NO_x (100 lbs NO_x/million cubic feet) and dividing by the heat content for natural gas (1 ft³/1050 btu) to arrive at the short term emission rate in lb/hr. The short term emission rate is multiplied by the annual operating hours of the emissions unit (8760) and divided by 2000 lbs/ton to arrive at TPY emission rate.

d . Emission Limitation -

2.52 lbs/hr of CO and 11.0 TPY when burning natural gas

Applicable Compliance Method -

Compliance shall be based upon multiplying the maximum hourly heat input capacity of the emissions unit (31.46 MMBtu/hr) by the AP-42 emission factor for CO (84 lbs CO/million cubic feet) and dividing by the heat content for natural gas (1 ft³/1050 btu) to arrive at the short term emission rate in lb/hr. The short term emission rate is multiplied by the annual operating hours of the emissions unit (8760) and divided by 2000 lbs/ton to arrive at TPY emission rate.

e . Emission Limitation -

0.020 lb/MMBtu actual heat input of PE and

2.76 TPY when burning natural gas and No. 2 fuel oil

Applicable Compliance Method -

Natural Gas

Compliance shall be based upon multiplying the maximum hourly natural gas burning capacity of the emissions unit (0.0299mmcu.ft/hr) by the AP-42 emission factor for natural gas (7.6 lb/MMCU.FT)(7/98) and dividing by the maximum hourly heat input capacity of the emissions unit (31.46 mmBtu/hr) to arrive at the short term emission rate in lb/MMBtu.

No. 2 Fuel Oil

Compliance shall be based upon multiplying the maximum fuel oil capacity of the emissions unit (222gal/hr) by the AP-42 emission factor for PM(2 lb/1000 gal) and dividing by the maximum hourly heat input capacity of the emissions unit (31.46 mmBtu/hr) to arrive at the short term emission rate in lb/MMBtu.

The short term emission rate (0.020 lb PE/mmBtu) is multiplied by the maximum hourly heat input capacity of the emissions unit (31.46mmBtu/hr) and the annual operating hours of the emissions unit (8760). This total is divided by 2000 lbs/ton to arrive at the TPY emission rate.

f . Emission Limitation -

15.8 lbs/hr of SO₂ and 7.1 TPY when burning No. 2 fuel oil

Applicable Compliance Method -

For the use of No.2 fuel oil, compliance shall be based upon multiplying the maximum fuel oil capacity of the emissions unit (222gal/hr) by the AP-42 emission factor for SO₂ (142*S lb/1000 gal). S is equal to the % weight of Sulfur in the fuel to arrive at the short term emission rate in lb/hr. The annual emission rate is determined by multiplying the AP-42 emission factor for SO₂ (142*S lb/1000 gal) by the actual annual gallons of # 2 fuel oil and divided by 2000 lbs/ton to arrive at the tons per year (TPY) emission rate.

g . Emission Limitation -

4.44 lbs/hr of NO_x and 2 TPY when burning No.2 fuel oil

Applicable Compliance Method -

For the use of No.2 fuel oil, compliance shall be based upon multiplying the maximum fuel oil capacity of the emissions unit (222gal/hr) by the AP-42 emission factor for NO_x (20 lb/1000 gal) to arrive at the short term emission rate in lb/hr.

Multiply the actual annual gallons of No. 2 fuel oil by the AP-42 emission factor for NO_x (20lbs/1000 gal) to determine annual emission rate, and divided by 2000 lbs/ton to arrive at the tons per year (TPY) emission rate.

h . Emission Limitation -

when burning No.2 fuel oil 1.11 lb/hr of CO and 0.5 TPY when burning No. 2 fuel oil

Applicable Compliance Method -

For the use of No.2 fuel oil, compliance shall be based upon multiplying the maximum fuel oil capacity of the emissions unit (222 gal/hr) by the AP-42 emission factor for CO (5 lb/1000 gal) to arrive at the short term emission rate in lb/hr. The actual annual gallons of No. 2 fuel oil is multiplied by the AP-42 emission factor for CO (5 lb/1000 gal) to arrive at the annual emission rate then divided by 2000 lbs/ton to arrive at the tons per year emission rate.

F. Miscellaneous Requirements

1. This source is subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. actual start-up date (within 15 days after such date); and,
- c. date of performance testing (If required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, OH 43216-3669

and

The Cleveland Bureau of Air Pollution Control
1925 St. Clair Ave.
Cleveland, Ohio 44114

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
B006 - 31.46 MMBtu/hr natural gas/No.2 fuel oil fired boiler	OAC rule 3745-31-05(A)(3)
Modified	
The terms and conditions of this permit supercede the terms and conditions of PTI 13-03071 issued on 7/11/2000.	OAC rule 3745-17-10(B)(1)
	OAC rule 3745-18-06(D)
	40 CFR Part 60 Subpart Dc
	OAC rule 3745-17-07(A)(1)
	OAC rule 3745-31-05(C) Synthetic Minor status to avoid

Title V

Applicable Emissions
Limitations/Control Measures

From burning natural gas
0.33 lb/hr OC and 1.45 TPY
3.00 lbs/hr NOx and 13.1 TPY
2.52 lbs/hr CO and 11.0 TPY
2.76 TPY of PE

Sulfur content of the oil shall not exceed 0.5 weight percent.

Opacity shall not exceed 20%, as a six-minute average, except for one six-minute period per hour of not more than 27% opacity.

Fuel oil usage restriction see B.3 below.

From burning No. 2 fuel oil
15.8 lbs/hr of SO2
4.44 lbs/hr NOx
1.11 lbs/hr CO

From burning No. 2 fuel oil
7.1 TPY SO2*
2 TPY NOx*
0.5TPY CO*
2.76 TPY of PE

The requirements of this rule include compliance with the requirements of 3745-17-07(A)(1), 17-10(B)(1), and NSPS Subpart Dc.

* as a rolling 12-month summation of emissions

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to NSPS Subpart Dc.

0.020 lb/MMBtu of PE

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule NSPS Subpart Dc.

2. Additional Terms and Conditions**2.a** None**B. Operational Restrictions**

1. The permittee shall burn only natural gas and/or No.2 fuel oil in this emissions unit.
2. The quality of the oil burned in this emissions unit shall meet the following specifications on an "as received" basis:
 - a. a sulfur content that is not greater than 0.5 weight percent sulfur; and
 - b. a heat content that is greater than 140,000 Btu/gallon of oil.

Compliance with the above-mentioned specifications shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil.

3. This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the No. 2 fuel oil usage, upon issuance of this permit. The maximum annual No. 2 fuel oil usage rate for this emissions unit shall not exceed 200,000 gallons of No. 2 fuel oil used, based upon a rolling, 12-month summation of the fuel usage.

C. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas and/or No.2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the Cleveland Division of Air Quality.
3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's

analyses for sulfur content and heat content.

4. The permittee shall maintain monthly records of the following information:
 - a. the No.2 fuel oil usage (in gallons) rate for each month; and
 - b. the rolling, 12-month summation of the No. 2 fuel oil usage rates.
5. The permittee shall maintain monthly records of the following information:
 - a. the natural gas usage (in cubic feet) rate for each month; and
 - b. the rolling, 12 month summation of natural gas usage rates

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas and/or No.2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses to the Cleveland DAQ for each shipment of oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent by weight) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
 - a. the total quantity of oil received in each shipment (gallons);
 - b. the weighted* average sulfur content (% weight) for the oil received during the calendar month; and
 - c. the weighted* average heat content (Btu/gallon) of the oil received during the calendar month.

*In proportion to the quantity of oil received in each shipment during the calendar month.

These reports shall be submitted (i.e., postmarked) quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

3. The permittee shall submit deviation (excursion) reports to the Cleveland DAQ that identify all exceedances of the rolling, 12-month limitation of the No. 2 fuel oil rate. These reports shall be submitted within 30 days after the exceedance occurs.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

- a . Emission Limitation -

20% opacity, as a six-minute average

Applicable Compliance Method(s) -

Compliance shall be determined by visible emission observations performed in accordance with USEPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03 (B)(1).

- b . Emission Limitation -

0.33 lb/hr of OC and 1.45 TPY when burning natural gas

Applicable Compliance Method -

Compliance shall be based upon multiplying the maximum hourly heat input capacity of the emissions unit (31.46 MMBtu/hr) by the AP-42 emission factor for OC (11 lbs OC/million cubic feet) and dividing by the heat content for natural gas (1 ft³/1050 btu) to arrive at the short term emission rate in lb/hr. The short term emission rate is multiplied by the annual operating hours of the emissions unit (8760) and divided by 2000 lbs/ton to arrive at the tons per year (TPY) emission rate.

c . Emission Limitation -

3.00 lbs/hr of NO_x and 13.1 TPY when burning natural gas

Applicable Compliance Method -

Compliance shall be based upon multiplying the maximum hourly heat input capacity of the emissions unit (31.46 MMBtu/hr) by the AP-42 emission factor for NO_x (100 lbs NO_x/million cubic feet) and dividing by the heat content for natural gas (1 ft³/1050 btu) to arrive at the short term emission rate in lb/hr. The short term emission rate is multiplied by the annual operating hours of the emissions unit (8760) and divided by 2000 lbs/ton to arrive at TPY emission rate.

d . Emission Limitation -

2.52 lbs/hr of CO 11.0 TPY when burning natural gas

Applicable Compliance Method -

Compliance shall be based upon multiplying the maximum hourly heat input capacity of the emissions unit (31.46 MMBtu/hr) by the AP-42 emission factor for CO (84 lbs CO/million cubic feet) and dividing by the heat content for natural gas (1 ft³/1050 btu) to arrive at the short term emission rate in lb/hr. The short term emission rate is multiplied by the annual operating hours of the emissions unit (8760) and divided by 2000 lbs/ton to arrive at TPY emission rate.

e . Emission Limitation -

0.020 lb/MMBtu actual heat input of PE and

2.76 TPY when burning natural gas and No. 2 fuel oil

Applicable Compliance Method -

Natural Gas

Compliance shall be based upon multiplying the maximum hourly natural gas burning capacity of the emissions unit (0.0299mmcu.ft/hr) by the AP-42 emission factor for natural gas (7.6 lb/MMCU.FT)(7/98) and dividing by the maximum hourly heat input capacity of the emissions unit (31.46 mmBtu/hr) to arrive at the short term emission rate in lb/MMBtu.

No. 2 Fuel Oil

Emissions Unit ID: B006

Compliance shall be based upon multiplying the maximum fuel oil capacity of the emissions unit (222gal/hr) by the AP-42 emission factor for PM(2 lb/1000 gal) and dividing by the maximum hourly heat input capacity of the emissions unit (31.46 mmBtu/hr) to arrive at the short term emission rate in lb/MMBtu.

The short term emission rate (0.020 lb PE/mmBtu) is multiplied by the maximum hourly heat input capacity of the emissions unit (31.46mmBtu/hr) and the annual operating hours of the emissions unit (8760). This total is divided by 2000 lbs/ton to arrive at the TPY emission rate.

f . Emission Limitation -

15.8 lbs/hr of SO₂ and 7.1 TPY when burning No. 2 fuel oil

Applicable Compliance Method -

For the use of No.2 fuel oil, compliance shall be based upon multiplying the maximum fuel oil capacity of the emissions unit (222gal/hr) by the AP-42 emission factor for SO₂ (142*S lb/1000 gal). S is equal to the %weight of Sulfur in the fuel to arrive at the short term emission rate in lb/hr. The annual emission rate is determined by multiplying the AP-42 emission factor for SO₂ (142*S lb/1000 gal) by the annual allowable gallons of # 2 fuel oil (200,000 gallons) and divided by 2000 lbs/ton to arrive at the tons per year (TPY) emission rate.

g . Emission Limitation -

4.44 lbs/hr of NO_x and 2 TPY when burning No.2 fuel oil

Applicable Compliance Method -

For the use of No.2 fuel oil, compliance shall be based upon multiplying the maximum fuel oil capacity of the emissions unit (222 gal/hr) by the AP-42 emission factor for NO_x (20 lb/1000 gal) to arrive at the short term emission rate in lb/hr. The annual emission rate is determined by multiplying the AP-42 emission factor for NO_x (20lbs/1000 gal) by the annual allowable gallons of # 2 fuel oil (200,000 gallons) and divided by 2000 lbs/ton to arrive at the tons per year (TPY) emission rate.

h . Emission Limitation -

1.11 lb/hr of CO and 0.5 TPY when burning No. 2 fuel oil

Applicable Compliance Method -

For the use of No. 2 fuel oil, compliance shall be based upon multiplying the maximum fuel oil capacity of the emissions unit (222 gal/hr) by the AP-42 emission factor for CO (5 lb/1000 gal) to arrive at the short term emission rate in lb/hr. The actual annual gallons of No. 2 fuel oil is multiplied by the AP-42 emission factor for CO (5 lb/1000 gal) to arrive at the annual emission rate then divided by 2000 lbs/ton to arrive at the tons per year emission rate.

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Modification Issued: 9/27/2007

Emissions Unit ID: B006

F. Miscellaneous Requirements

1. This source is subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. actual start-up date (within 15 days after such date); and,
- c. date of performance testing (If required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, OH 43216-3669

and

The Cleveland Bureau of Air Pollution Control
1925 St. Clair Ave.
Cleveland, Ohio 44114

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VA M

PTI A

Modification Issued: 9/27/2007

Emissions Unit ID: **B006**